

93. The method of claim 91, wherein the agent inhibits association of the cytokine receptor  $\gamma$  chain with a JAK kinase having a molecular weight of about 116 kD as determined by sodium dodecyl sulfate polyacrylamide gel electrophoresis.

94. The method of claim 91, wherein the agent inhibits tyrosine phosphorylation of a JAK kinase having a molecular weight of about 116 kD as determined by sodium dodecyl sulfate polyacrylamide gel electrophoresis.

95. The method of claim 91, wherein the agent inhibits tyrosine phosphorylation of the cytokine receptor  $\gamma$  chain.

96. The method of claim 91, wherein the agent inhibits tyrosine phosphorylation of both the cytokine receptor  $\gamma$  chain and a JAK kinase having a molecular weight of about 116 kD as determined by sodium dodecyl sulfate polyacrylamide gel electrophoresis.

#### REMARKS

Claims 1-44 have been canceled and new claims 48-96 have been added. Applicants hereby elect Group I (original claims 1-10; corresponding to new claims 49-61), species III (original claim 3; corresponding to new claim 54) with traverse, as set forth in the restriction requirement mailed from the Patent Office on October 4, 1995.

The restriction requirement is traversed to the extent that Applicant believes the claims should be regrouped for restriction purposes as set forth below:

Group I: claims 1-44 (corresponding to new claims 49-96); and

Group II: claims 45-47.

Newly formed Group I pertains to methods for modulating unresponsiveness by a T cell, comprising contacting a T cell which expresses a cytokine receptor  $\gamma$  chain and has received a primary activation signal with an agent which modulates a signal associated with ligation of the cytokine receptor  $\gamma$  chain such that unresponsiveness by the T cell is modulated. Such methods include those wherein the agent stimulates a signal associated with ligation of the cytokine receptor  $\gamma$  chain, such that unresponsiveness by the T cell is inhibited. The methods of the invention also include those wherein the agent inhibits a signal associated with ligation of the cytokine receptor  $\gamma$  chain, such that unresponsiveness by the T cell is stimulated. The agent for use in the methods of the invention can act intracellularly or extracellularly to modulate a signal associated with ligation of the cytokine receptor  $\gamma$  chain.

In addition, if Group I was elected, the Examiner required an election of a patentably distinct species from the group consisting of:

- I) Methods for stimulating proliferation of a T cell using IL-4 (claim 2; new claim 53);
- II) Methods for stimulating proliferation of a T cell using IL-7 (claim 2; new claim 53); and
- III) Methods for stimulating proliferation of a T cell using an anti-gamma chain antibody (claim 3; new claim 54).

Applicants elect species III, i.e., methods for stimulating proliferation of a T cell using an anti-gamma chain antibody (claim 3; new claim 54) for prosecution on the

merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

In addition, if Group III is elected (the claims of which are included in newly formed Group I), the Examiner required an election of a patentably distinct species from the group consisting of:

- I) Methods for inducing unresponsiveness to an antigen in a T cell using an agent which acts extracellularly to inhibit delivery of a signal through a cytokine gamma chain (claims 20-24; new claims 72-76); and
- II) Methods for inducing unresponsiveness to an antigen in a T cell using an agent which acts intracellularly to inhibit delivery of a signal through a cytokine gamma chain (claims 25-29; new claims 77-81).

In addition, upon election of subspecies I) from Group III, the Examiner further required and election of a patentably distinct species from the group consisting of:

- i) an anti-gamma chain antibody (claim 22; new claim 74);
- ii) an anti-IL-7 antibody (claim 24; new claim 76);
- iii) an anti-IL-4 antibody (claim 24; new claim 76); and
- iv) an anti-IL-2 antibody (claim 24; new claim 76).

Applicants further elect species I (included in revised Group I as proposed by Applicants), i.e., methods for inducing unresponsiveness to an antigen in a T cell using an agent which acts extracellularly to inhibit delivery of a signal through a cytokine gamma chain (claims 20-24; new claims 72-76), subspecies i), i.e., an anti-gamma chain antibody

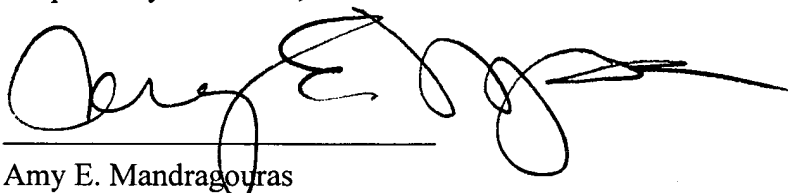
(claim 22; new claim 74) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Under 35 U.S.C. §121, an election of a single species for prosecution on the merits is required, to which the claims will be restricted if no generic claim is finally held allowable. Currently claim 48 is generic. Upon the allowance of the generic claim, Applicants will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. § 1.41.

#### SUMMARY

If a telephone conversation with Applicants' Attorney would expedite the prosecution of the above-identified application, the examiner is urged to call Applicants' Attorney at (617) 227-7400.

Respectfully submitted,



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